have sufficient heatability for a desired speed of heating. These microwave absorbents are also useful when the employed polymeric material has only a low microwave absorption behavior at low temperatures such as many thermoplastic polymers including polycarbonate and also for substantially increasing the speed and the addressability such as in welding and joining functions. These absorbers may be powdery, hollowed, coated and comprise ferromagnetics, metallic oxides or specialty ceramics. Microwave absorbent materials and/or sterilants can be advantageously utilized with the intra-oral embodiment of the present invention to increase the speed and addressability of heating the dental composite and to increase the effectiveness of the sterilization of the targeted caries.

Page 12, lines 15-16

The following tables set forth several examples in accordance with the various aspects of the present invention. All ratios for materials are expressed in weight.

In the Claims

1. (Once Amended) A microwave dental system comprising:

a hand-held dental tool including:

an antenna positioned at a distal end of the tool and configured to be selectively positioned within a mouth of a patient adjacent at least one exterior surface of a tooth; and

a waveguide connected to the antenna;

a source of microwave energy operably coupled to the waveguide, including a control system for controlling delivery of microwave energy to the waveguide such that the dental tool delivers microwave energy to the at least one exterior surface of the tooth.

2. (Once Amended) The microwave dental system of claim 1 wherein the control system controls the source of microwave energy to deliver less than 10 W to the antenna.